

Comparisons of Job Characteristics

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	12.2	9.5	<< Extensive education and/or training may be required
Production and Processing	6.0	11.6	6.4	<< Extensive education and/or training may be required
Public Safety and Security	6.9	8.0	4.0	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 89

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Operation Monitoring	6.6	9.6	7.8	< A higher skill level may be required
Operation and Control	5.4	8.6	5.9	<< Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 95

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)**Associated Occupation: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)**

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Manual Dexterity	6.5	9.7	10.3	0	Current ability level may be sufficient
Control Precision	6.6	9.6	9.5	0	Current ability level may be sufficient
Finger Dexterity	7.6	9.6	9.7	0	Current ability level may be sufficient
Auditory Attention	5.9	7.9	6.3	<	Some improvement in abilities may be required
Extent Flexibility	4.8	7.9	5.2	<<	Extensive improvement in abilities may be required
Reaction Time	4.8	7.3	7.1	0	Current ability level may be sufficient
Rate Control	3.8	7.2	4.7	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 96

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)**Associated Occupation: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)**

Work Activities	Exclusivity of Activity
Braze metal parts or components together	85
Clean or degrease weld, or parts to be welded or soldered	99
Examine products or work to verify conformance to specifications	15
Fabricate, assemble, or disassemble manufactured products by hand	11
Lay out machining, welding or precision assembly projects	63
Load or unload material or workpiece into machinery	34
Monitor production machinery/equipment operation to detect problems	27
Move or fit heavy objects	8
Operate hoist, winch, or hydraulic boom	34
Operate metal or plastic fabricating equipment/machinery	54
Position, clamp or assemble workpiece prior to welding	99
Preheat metal before welding, brazing, or soldering	99
Read blueprints	10
Read production layouts	66
Read specifications	23
Read technical drawings	7
Read work order, instructions, formulas, or processing charts	9
Recognize characteristics of metals	62
Solder metal parts or components together	73
Understand technical operating, service or repair manuals	6
Use acetylene welding/cutting torch	54
Use hand or power tools	2

Use non-destructive test equipment	82
Use precision measuring tools or equipment	17
Use spot or tack welding techniques	87
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 88

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Data management and query software	1
Face and head protection	7
Forming tools	2
Heating equipment and parts and accessories	19
Holding and clamping tools	3
Holding and positioning and guiding systems and devices	23
Industry specific software	1
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Measuring and layout tools	3
Power tools	2
Robotics	33
Rough and finishing tools	5
Safety apparel	4
Soldering and brazing and welding machinery and supplies	6
Vision protection and accessories	3

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.